

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended): A method of producing a reticular structure, said method comprising the steps of:
  - a) placing a reticulated foam pre-structure into a first container having a lid;
  - b) infiltrating said foam pre-structure with a refractory mold material;
  - c) solidifying said refractory material to form a refractory mold;
  - d) withdrawing said refractory mold along with said foam pre-structure from said first container;
  - e) removing said foam pre-structure from said refractory mold;
  - f) ~~pre-heating said refractory mold and placing said~~ refractory mold into a second container having at least one opening for pouring in a molten substance and at least one wall, wherein said second container is greater in size than said refractory mold so as to leave a gap between said refractory mold and said at least one wall;
  - g) infiltrating said refractory mold with a said molten substance to form a reticular structure;
  - g) h) pouring a jacket material over said refractory mold so as to fill said gap with said jacket material to form a plate;
  - i) cooling said reticular structure by maintaining a temperature of said second container, and particularly of said at least one wall, that is lower than a temperature of said molten substance so as to draw heat from said reticular structure into said second container, and particularly through said plate; and

h) j) after said molten substance has solidified, withdrawing said reticular structure from said second container and removing said refractory mold from said reticular structure.

Claims 2 – 7 (previously cancelled).

8 (currently amended): The method of producing a reticular structure according to claim 1, wherein, after the said step of withdrawing said refractory mold from said first container, said foam pre-structure protrudes from said refractory mold.

9. (cancelled).

10. (unchanged): The method of producing a reticular structure according to claim 1, wherein said foam pre-structure has a surface and wherein, subsequent to step a), said method includes a step of modifying said surface by roughening.

11. (unchanged): The method of producing a reticular structure according to claim 1, wherein said foam pre-structure has a surface and wherein, subsequent to step a), said method includes a step of modifying said surface by texturing.

12. (unchanged): The method of producing a reticular structure according to claim 1, wherein said reticular structure has a structure surface and wherein, subsequent to step h), said method includes a step of modifying said structure surface by applying a coating to said structure surface.

13. (cancelled).

14. (unchanged): The method of Claim 1, wherein said reticular structure is a metallic reticular structure and said molten substance is a molten metallic substance comprising materials from a group consisting of metals, metal alloys, ceramics and cermet.

15. (unchanged): The method of Claim 1, wherein said foam pre-structure is a polyurethane foam.

16. (unchanged): The method of Claim 1, wherein said refractory mold material comprises a gypsum plaster suspension.

17. (unchanged): The method of Claim 1, wherein said first container is made of a refractory material.

18. (unchanged): The method of Claim 1, wherein said second container is made of a heat-resistant material.

**Amendments to the Drawings:**

The attached drawing sheets includes an amendment to FIG. 1. The reference designation "10A" has been deleted from FIG. 1. Reference designation 18A has been added to FIG. 7. Leader line for "24" has been amended in FIG. 8 to point to plate edge.

Also attached are annotated sheets showing the amendments.

Attached:                  Two Annotated Drawing Sheets  
                                Two Amended Formal Drawing Sheets